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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,056	08/21/2006	Seiji Kashiwada	060592	5608

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EXAMINER	
BOWMAN, ANDREW J	

ART UNIT	PAPER NUMBER
1792	

MAIL DATE	DELIVERY MODE
05/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,056	KASHIWADA ET AL.	
	Examiner	Art Unit	
	ANDREW BOWMAN	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/18/06, 8/21/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 5-7, 11, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP2001106967).

a. Regarding claim 1, Yamamoto teaches a combination of A (paragraph [0019], B (paragraph [0049]), and C (paragraph [0050]). Yamamoto is silent regarding the compositions of the coloring pigments. However, it is the position of the examiner that it is well-known that most coloring pigments used in compositions similar to that of the current application are inorganic (as is shown in the later rejection of claim 4) and it would be obvious to use them because they are known to be suited for providing color to such compositions. Further, it is the position of the examiner that some if not all of the pigments listed as anticorrosive pigments would additionally be capable of providing color to the composition.

b. Regarding claim 2, Yamamoto goes on to show that some useful epoxy resins are bisphenol-type epoxy resins (paragraph [0020]).

c. Regarding claim 3, Yamamoto further teaches the graft polymerization of a vinyl monomer to an alkyd resin, wherein the alkyd resin may be a bisphenol-type resin as shown in paragraph [0020])

d. Regarding claim 5, Yamamoto further teaches the use of aluminum dihydrogen tripolyphosphate.

e. Regarding claim 6, Yamamoto further teaches the modification of the poorly water-soluble condensed phosphate (i.e. aluminum dihydrogen tripolyphosphate) with magnesium oxide (paragraph [0042]).

f. Regarding claims 7, Yamamoto further teaches where the ratio of anticorrosive pigment is 5 to 100 parts by weight, as against 100 parts of the

components resin components and curing agent. Although it is not clear that the current range overlaps that of the prior art, it is the position of the examiner that the amount of anticorrosive pigment would be known to effect the anticorrosive properties of the final product, and in the absence of criticality of the specific ratio of components taught by the current claim, it would be obvious for one of ordinary skill in the art to optimize the ratio of components on the mixture to improve the anticorrosive properties of it.

g. Regarding claims 11 and 16, Yamamoto further teaches applying the mixture to a metal sheet (claim 4) and heat-drying (paragraph [0060]).

h. Regarding claims 13 and 17, Yamamoto fails to teach the application of the material to a disc break part. However it is the position of the examiner that because it would be is known that the coating of Yamamoto is heat resistant, anticorrosive, and intended to be applied to metal parts, it is the position of the examiner that it would be obvious to apply the coating of Yamamoto to any metal part that would be susceptible to corrosion and high heat, including disc break parts.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP2001106967) in view of Pelloski (US4544581).

i. Regarding claim 4, the teaching of Yamamoto are as shown above. Yamamoto fails to teach the use of manganese dioxide as a coloring pigment. However, Pelloski shows that it is well-known to use manganese oxide as an inorganic coloring pigment for anticorrosive coatings that are intended for metal

substrates (column 2, lines 61-64 and Title). One of ordinary skill in the art would be motivated to use the coloring pigment of Pelloski in the invention of Yamamoto because it is shown to be suited for coloring those types of compositions by Pelloski.

3. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP2001106967) in view of JP50032230A.

j. Regarding claim 8, Yamamoto fails to teach the addition of a resol phenolic resin. However, JP50032230A shows that it is well-known to add resol phenolic resins to compositions containing novolak-type resins (like the current application) that are used as anticorrosive coating compositions for metal substrates. One of ordinary skill in the art would be motivated to use the resol phenolic resin of JP50032230A in the invention of Yamamoto, because JP50032230A shows that such resins are suited for use together.

k. Regarding claim 9, the teachings of Yamamoto in view of JP50032230A are as shown above. Yamamoto in view of JP50032230A is silent regarding the number average molecular weight of the resol phenolic resin. However, 1) the resol phenolic resin of Yamamoto in view of JP50032230A inherently has a number average molecular weight, 2) it is likely similar to that of the current application due the similar use of the ingredient in both the current application and the prior art, and 3) the number average molecular weight of the resol phenolic resin as well as the average of methylol groups per benzene would inherently affect the final mechanical properties of the coating material.

Therefore, in view of the combined reasoning supplied by the examiner, in the absence of criticality of the specific number average molecular weight range and methylol range, it is the position of the examiner that it would be considered obvious for one of ordinary skill in the art to optimize those values to obtain the most desirable final mechanical properties (i.e. tensile strength, abrasive resistance, and etc.

l. Regarding claim 10, JP50032230A teaches where the ratio of resol phenolic resin is 2.5 parts by weight, as against 150 parts of the remaining resin components, which would motivate one of ordinary skill to use the same ratio of components when incorporating the resol phenolic resin into the composition of Yamamoto. That ratio would read on the current claims.

4. Claims 12, 14, 15, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP2001106967) in view of Suzuki et al. (JP200133255A)

m. Regarding claims 12, 14, 15, 18, and 19, the teachings of Yamamoto are as shown above. Yamamoto fails to teach the use of electromagnetic inductive heating as the drying method. However, Suzuki shows that a common way of drying coatings that are applied to metal substrates is through electromagnetic inductive heating. One of ordinary skill in the art would be motivated to use the electromagnetic inductive heating method of Suzuki to dry the wet-coated substrate of Yamamoto because Suzuki shows that his method is suitable for drying these types of substrates and reduces cracking.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW BOWMAN whose telephone number is (571)270-5342. The examiner can normally be reached on Monday through Friday (7:30 to5:00)EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit 1792

Andrew J Bowman
Examiner
Art Unit 1792

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